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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,656	03/24/2004	Ryuji Nishikawa	YKI-0145	3909

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EXAMINER
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HU, SHOUXIANG

ART UNIT	PAPER NUMBER
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2811

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/807,656

Applicant(s)

NISHIKAWA, RYUJI

Examiner

Shouxiang Hu

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 5-14 and 18-21 are objected to because of the following informalities and/or defects:

Claims 5 and 10 each recite the term of "each pixel", but fail to clarify what is its relationship with the "plurality of pixels" also recited in the claims.

Claims 18 and 19 recite the term of "a metal layer", but fail to clarify what is its relationship with the "semitransparent electrode" already recited in claims 5 and 10, respectively. In addition, the term of "transmitted" recited therein should read as: -- partially transmitter--, in accordance with the subject matter of the instant invention.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5, 7, 10, 12 and 18-19, as being best understood in view of the above claim objections, are rejected under 35 U.S.C. 102(b) as being anticipated by Tamura (US 6,410,168).

Tamura discloses a light-emitting display (Figs. 1 and 3; also see cols. 5 and 6), including a plurality of pixels in a display section (such as the row of pixels under an individual row electrode 14 in Fig. 1), each pixel comprising: a transparent substrate (11); a first electrode (12; transparent; an anode) having an individual shape (see Fig. 1); a light-emitting layer (13); a second electrode (a cathode; a semi-transparent thin Ag layer, less than 20 nm in thickness, see cols. 5 and 6) as a common electrode for the plurality of pixels; and, an antireflective layer (21), which can be naturally regarded as a common layer since it covers the entire stripe-shaped layer 14 (see col. 6, lines 55-57).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, 8-9, 11, 13-17, and 20-21, as being best understood in view of the claim objections, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Lester (US 6,28,618) and/or Uemura (US 2003/0160259 A1), and/or Koo (Koo et al., US 2003/0117059).

The disclosure of Tamura is discussed as applied to claims 5, 7, 10, 12 and 18-19 above.

Tamura does not expressly disclose the features including: the second electrode including the semitransparent layer can be mesh-shaped (as recited in claims 1, 6, 11

and 15-17); or that the antireflective layer can also be formed of Mo or chromium oxide (as recited in claims 4, 8, 13 and 20-21; and/or that the light-emitting element can be used in TFT-based actively addressed display device and/or the device can further include an antireflective light-blocking layer between the TFT and the substrate (as recited in claims 9 and 14).

However, one of ordinary skill in the art readily recognize that the crux of the Tamura invention is to reduce light reflection from the second electrode (14) by letting as much as possible the light to pass through the second electrode, and to reach and to be absorbed by the overlying antireflective layer (21); and, it is art known that more lights can pass through an second electrode that is mesh-shaped with apertures therein, as readily evidenced in the prior art such as Lester (see the apertures 18 in the second electrode layer 16 in the cover page figure) and/or Uemura (see the apertures in the second electrode layer 17 in the cover page figure).

And, as evidenced in Koo, one of ordinary skill in the art readily recognize that each of Mo and chromium oxide is commonly used to forming an antireflective layer with desired low reflectivity ([0019]); that the light-emitting element can be desirably used in TFT-based actively addressed structure for high quality display and that the device can further include an antireflective light-blocking layer between the TFT and the substrate for better contrast (see the naturally antireflective light-blocking Mo layer 105 between the TFT and the substrate 100).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the mesh-shaped second electrode with

apertures of Lester and/or Uemura, and/or to incorporate the Mo or chromium oxide antireflective material and/or the TFT-based addressing structure of Koo into the device of Tamura, so that an display device or an actively addressed display device with reduced adverse reflection and/or with desired low reflectivity in the antireflective layer, with high display quality and/or with better contrast would be obtained.

Regarding claim 15, it is noted that the second electrode in Tamura can also be formed of Al (see col. 5, lines 32-38).

### ***Response to Arguments***

Applicant's arguments regarding Tamura and/or Koo filed on November 17, 2005, have been fully considered but they are not persuasive. And, response to these arguments has been fully incorporated into the claim rejections and/or objections set forth above in this office action.

Applicant's other arguments with respect to above rejected claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

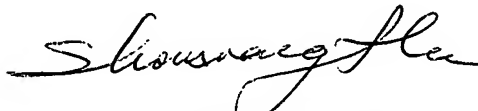
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

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Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH

January 30, 2006

A handwritten signature in black ink, appearing to read "Shouxiang Hu", written in a cursive style.

**SHOUXIANG HU**  
**PRIMARY EXAMINER**